

31. (New) The mask of Claim 27 wherein said material resistant to vapor hydrogen fluoride etchant is patterned by planerization.

32. (New) The mask of Claim 27 wherein the layer of material resistant to vapor hydrogen fluoride etchant has a small opening therethrough to expose the portion of material under said layer.

33. (New) The mask of Claim 32 wherein said small opening has dimensions of less than one micrometer.

34. (New) An etch resistant masking layer, comprising a layer of material resistant to vapor hydrogen fluoride etchant having an opening therethrough to expose a portion of an underlying layer such that said portion can be etched by vapor hydrogen fluoride etchant.

35. (New) The masking layer of Claim 34 wherein said layer of material resistant to vapor hydrogen fluoride etchant comprises polyimide.

36. (New) The masking layer of Claim 35 wherein said polyimide is photosensitive.

37. (New) The masking layer of Claim 35 wherein said polyimide is non-photosensitive.

38. (New) The masking layer of Claim 34 wherein said opening in said material resistant to vapor hydrogen fluoride etchant is formed by planerization.

39. (New) The masking layer of Claim 34 wherein said opening is less than one micrometer in width.

40. (New) A mask for etching, comprising a layer of material resistant to vapor hydrogen fluoride etchant having an opening exposing a portion of material under said layer, said opening adapted to permit flow therethrough of vapor hydrogen fluoride etchant for etching said exposed portion.

41. (New) The mask of Claim 40 wherein said layer of material resistant to vapor hydrogen fluoride etchant comprises polyimide.

42. (New) The mask of Claim 41 wherein said polyimide is photosensitive.

43. (New) The mask of Claim 41 wherein said polyimide is non-photosensitive.

44. (New) The mask of Claim 40 wherein said material resistant to vapor hydrogen fluoride etchant is patterned by planerization.

45. (New) The mask of Claim 41 wherein said opening has dimensions of less than one micrometer.

46. (New) An intermediate structure, comprising:  
a masking layer resistant to vapor hydrogen fluoride etchant having an opening therethrough;  
a layer of material underlying said masking layer having a cavity formed therein by having a portion of material exposed by said opening etched by vapor hydrogen fluoride etchant; and

vapor hydrogen fluoride etchant in said opening and said cavity.

47. (New) The intermediate structure of Claim 46 wherein said masking layer comprises polyimide.

48. (New) The intermediate structure of Claim 47 wherein said polyimide is photosensitive.

49. (New) The intermediate structure of Claim 47 wherein said polyimide is non-photosensitive.

50. (New) The intermediate structure of Claim 46 wherein said opening has dimensions of less than one micrometer.